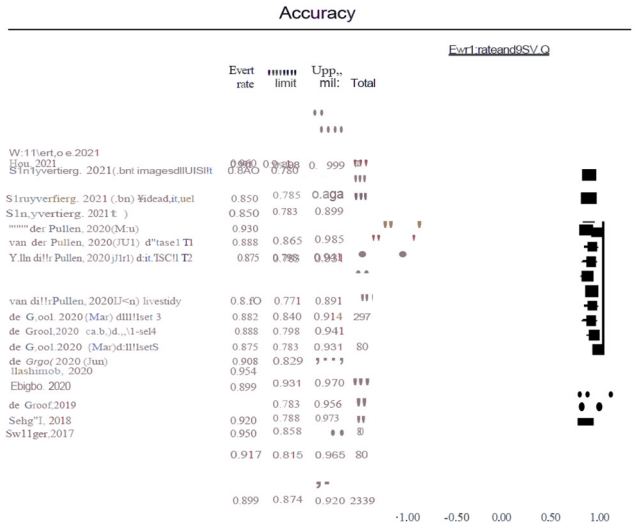

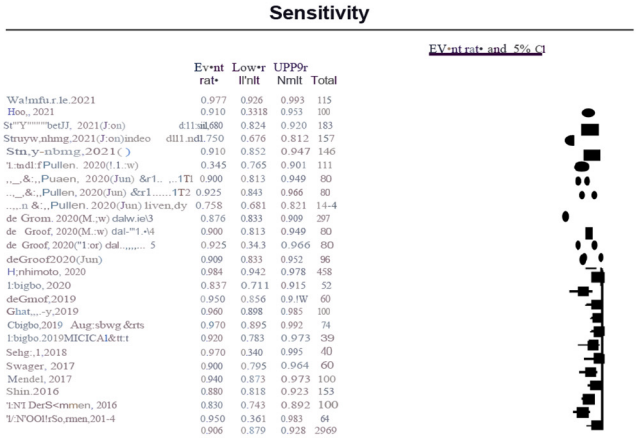

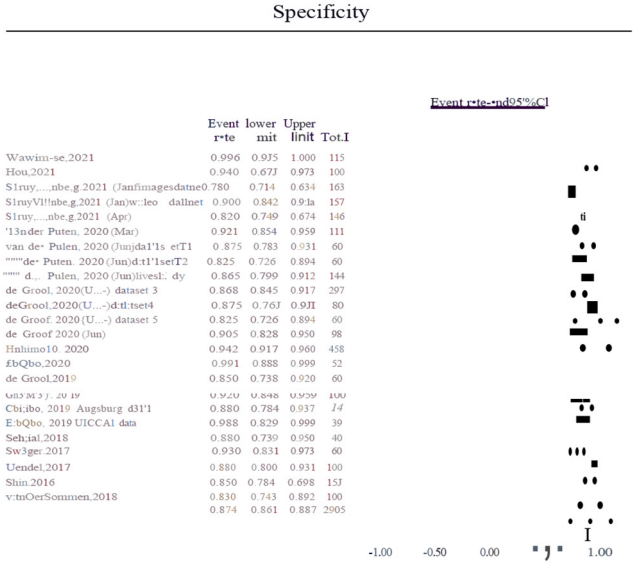

CONTROL ID: 3696931

USE OF A TRANSPARENT DISTAL ATTACHMENT CAP FOR THE DETECTION OF VISIBILE LESIONS IN BARRETT'S ESOPHAGUS: A PROSECTIVE TRIAL

Stephen Hasak*, Dan Mullady, Dayna Early, Koushik K. Das, Gabriel Lang, Natalie D. Cosgrove, Dennis D. Chen, Thomas Hollander, Ian Sloan, Vladimir Kushnir

DDW 2022 Author Disclosures: Stephen Hasak: NO financial relationship with a commercial interest | Dan Mullady: No Answer. | Dayna Early: NO financial relationship with a commercial interest | Koushik Das: YES financial relationship with a commercial interest;Interpace Biosciences:Grant/Research Support | Gabriel Lang: NO financial relationship with a commercial interest | Natalie Cosgrove: NO financial relationship with a commercial interest | Dennis Chen: NO financial relationship with a commercial interest | Thomas Hollander: NO financial relationship with a commercial interest | Ian Sloan: NO financial relationship with a commercial interest | Vladimir Kushnir: NO financial relationship with a commercial interest

Background: Barrett's esophagus is the only known precursor lesion to esophageal adenocarcinoma. Small nodular lesions may harbor dysplasia or intramucosal carcinoma, but can be challenging to visualize. Transparent distal attachment caps are used in other settings for improved diagnostic and therapeutic yield, but have not been evaluated in the setting of Barrett's esophagus. Methods: Consecutive patients presenting for endoscopy for further evaluation of suspected dysplasia or endoscopic eradication therapy (EET) of Barrett's esophagus at a single academic center were invited to participate. Patients were excluded if they had a prior diagnosis of invasive esophageal adenocarcinoma (≥T1b) or had undergone prior EET. Eligible patients who participated underwent tandem endoscopy with and without a distal attachment cap by separate endoscopists blinded to each other's findings. Examinations under high definition white light (hdWL) and narrow band imaging (NBI) were performed on both exams. Randomization determined the initial endoscopy type: with a distal cap (group 1) or no cap (group 2). The primary outcome was the identification of visible lesions within the Barrett's segment. The paired t-test was used for continuous data and McNemar's test was used for categorical data. Results: 100 patients participated (65.6±11.7 years, 85% male). 82% were referred for dysplasia treatment (ablation or resection). The remainder were for surveillance. 30/99 (33.3%) had a visible raised lesion on prior endoscopy. Histology findings prior to evaluation at our center were: T1a adenocarcinoma: 14/99 (14.1%), high grade dysplasia: 47/99 (47.5%), low grade dysplasia: 33/99 (33.3%), indefinite for dysplasia: 1/99 (1.0%), nondysplastic Barrett's: 4/99 (4.1%). There was no difference in duration of evaluation between groups (Group 1, 159.8± 73.4 sec vs Group 2, 160.9±74.6 seconds, p=0.91). Overall, visible lesions were detected in 65/100 (65%) of patients. The visible lesion miss rate was 5/65 (7.7%) in group 1 and 9/65 (13.9%) in group 2 (p=.29) (table 1). Additional tissue was acquired in 63/100 (63.0%) patients; 9/100 (100.0%) underwent biopsy and 54/100 (54.0%) had endoscopic mucosal resection. The remaining patients underwent ablation without repeat sampling. The final histology was upstaged in 15/99 (15.2%) cases. Conclusion: We found that utilizing a distal cap does not improve the diagnostic yield for visible lesions within a Barrett's segment in patients with suspected neoplasia undergoing endoscopy at a referral center. However, the use of a transparent distal attachment cap is safe and with little downside. In light of the miss rate of 13.9% without a cap, the cap may be of value during routine screening of average risk patients with Barrett's esophagus. We believe that this technique warrants further study in an average risk cohort.

	Cap	No cap	p
Time	159.8± 73.4	160.9±74.6	0.93
Visible Lesions - any imaging	60/100{60%)	56/100 (56%)	0.29
Visible lesions- hdWL	58/100 (58%)	56/100 (56%)	0.59
Visible lesions- NBI	59/100 (59%)	55/100 (55%)	0.29
Miss Rate	5/65 (7.7%)	9/65 (13.9%)	0.29

CONTROL ID: 3694718

ALARMING INCREASE IN PREVALENCE OF ESOPHAGEAL CANCEER AND BARRETT'S ESOPHAGUS IN MIDDLE-AGED PATIENTS: FINDINDS FROM A STATEWIDE DATABASE OF OVER FIVE MILLION PATIENTS

Bashar J. Qumseya*, Ramzi Salloum

DDW 2022 Author Disclosures: Bashar Qumseya: NO financial relationship with a commercial interest | Ramzi Salloum: NO financial relationship with a commercial interest

Introduction: Barrett's esophagus (BE) is traditionally thought of as a disease of elderly white males. The prevalence of both BE and esophageal cancer (EC) is thought to have plateaued in recent years. However, such a trend may be age- dependent. We aimed to assess the prevalence of BE and EC based on age group in an extensive statewide

database of over 5 million patients. Methods: This analysis was conducted using electronic health record data from the OneFlorida Clinical Data Research Network. The database covers more than 40% of Floridians. We used ICD-9 and ten codes to identify patients who carry diagnoses of EAC and BE in the overall population from 2012 to 2019. The primary outcome of interest was the adjusted prevalence of BE and EC in the population. This outcome was adjusted per 100,000 patients. Age was categorized into three groups: young patients (18 -44), middle-aged (45- 64), and elderly (>65 years). Regression analysis assessed the association between the number of risk factors and BE. We reported beta coefficient and p- values. We used the Chi-square test to look for differences between proportions. The IRB approved the study at the University of Florida. Results: The number of patients included in the database varied by year and ranged from 4,238,884 to 5,411,838 adult patients. Gender distribution in the most recent year (2019) was 42.8% (n=2,223,498) males and 57.1% (n=2,964,538) females. Of all patients, 40% (n=2,068,086) are white, and 22.2% (n=5,188,036) were African American. The prevalence of EC varied significantly by age group and was higher in the elderly group than the middle-aged group in each year (p<0.0001). The prevalence of EC was stable over time in elderly group, but increased logarithmically (y=19ln(x) + 94, R^2=0.97) from 49 to 94 per 100,000 in the middle-age group (figure 1a). Similarly, the prevalence of BE in the middle-aged group increased logarithmically (y=69ln(x) + 3147, R^2=0.94) from 304 in 2012 to 466 per 100,000 in 2019 (figure 1b). In subgroup analysis, the rate of increase in BE prevalence was highest in the 51-60 years age group, followed by 61 -70 years, then 41-50 group (figure 2a). In the same time period, utilization of EGD in the population was stable (Figure 2b). Conclusions: While the prevalence of EC and BE appears to have plateaued in the elderly, the current study shows that the most concerning trend is in middle-aged patients with an increasing prevalence of EC and BE despite the lack of increase in the use of endoscopy. To our knowledge, this is the largest population dataset to show this trend, which may significantly affect our strategies to screen patients for BE and EC.

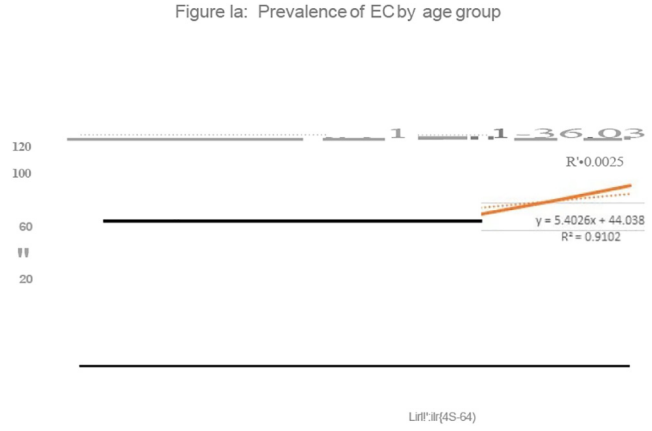

Figure Ia. Prevalence of EC by age group

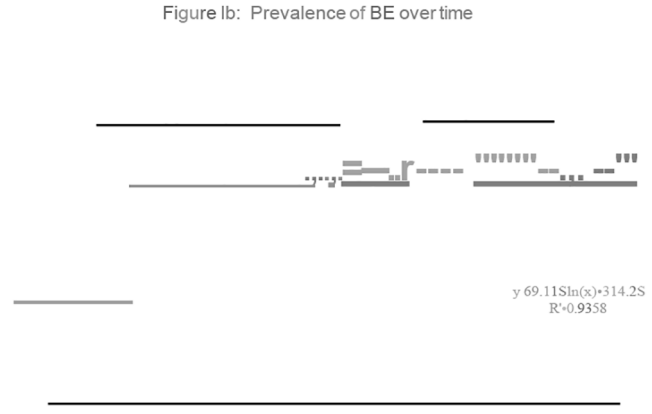

Figure Ib. Prevalence of BE over time

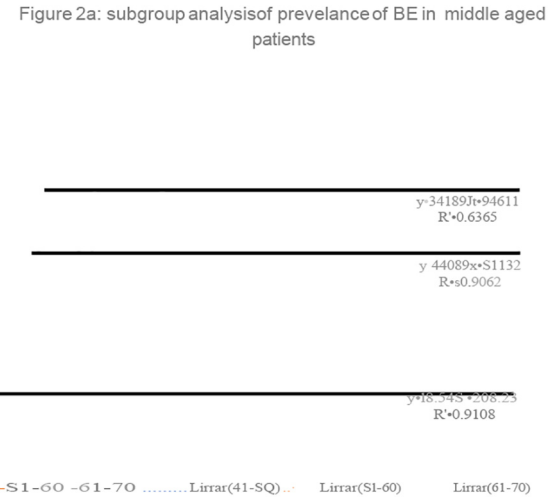

Figure 2a. subgroup analysisof prevelance of BE in middle aged patients

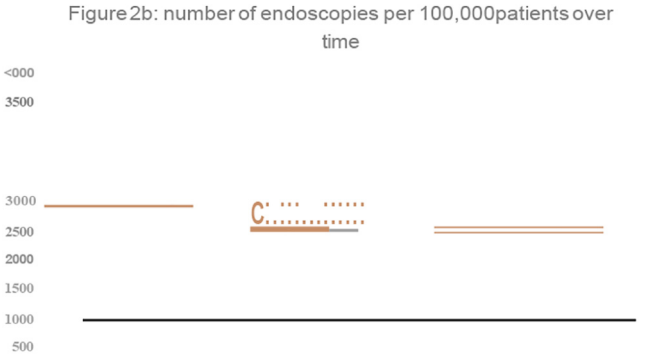

Figure 2b. number of endoscopies per 100,000patients over time

Table 1. rates of esophageal cancers and Barrett's Esophagus by year

Year	A'1eGrouo	Total	TotalBE	Prevalence of BE	TotalEAC	Prevalence EAC
2012	MiddleARe	704348	2142	304	347	"
	Elderl	TT3021	3825	495	‴	123
2013	MiddleAoe	777534	2950	380	463	**60**
	Elderl	s2on1	4632	564	1235	150
2014	MiddleA11e	801916	3180	397	4&5	**60**
	Elderl	834956	4596	550	1128	135
2015	MiddleA11e	842812	3424	406	552	65
	Elderly	849689	4671	550	1195	141
					,...	
2016	MiddleA11e	870392	3531	406		65
	Elderly	870115	4370	502	1183	136
2017	MiddleMe	852257	3823	449	608	71
	Elderl	851740	4&53	570	1184	139
2018	MiddleA11e	843669	3708	440	691	82
	Elderl	822878	4505	547	1095	133
2019	MiddleAlle	808493	3768	466	750	94
	Elderl	770919	3957	513	1052	136

CONTROL ID: 3695461

INITIAL EXPERIENCE WITH THE USE OF A TETHER WITH THE NAVICAM VIDEO CAPSULE SYSTEM.

David R. Cave*, Donna Gladney, Monique Rinner, Anne Foley, Jean Marie Houghton

DDW 2022 Author Disclosures: David Cave: YES financial relationship with a commercial interest;Olympus Corp:Grant/Research Support;Anx Robotics:Grant/Research Support;Medtronic:Grant/Research Support;Celgene:Grant/Research